REMARKS

At the time of the Office Action dated October 17, 2003, claims 1-18 were pending in this application. Of those claims, claims 1-7 have been rejected and claims 8-18 have been withdrawn from consideration pursuant to the provisions of 37 C.F.R. § 1.142(b). Claim 1 has been amended, and Applicants submit that the present Amendment does not generate any new matter issue.

CLAIMS 1-7 ARE REJECTED UNDER THE SECOND PARAGRAPH OF 35 U.S.C. § 112

In the third enumerated paragraph of the Office Action, the Examiner asserted that the limitation "a processing chamber into and from which processing gas is inlet and outlet" is unclear because the Examiner could not determine "how the processing gas is an inlet and outlet." This rejection is respectfully traversed.

Initially, Applicants note that claim 1 has amended the above-identified phrase in claim 1 to read "a processing chamber." As such, Applicants submit that one having ordinary skill in the art would have no difficulty understanding the scope of amended claim 1. Thus, the imposed rejection of claims 1-7 under the second paragraph of 35 U.S.C. § 112 has been overcome and, hence, Applicants respectfully solicit withdrawal thereof.

CLAIM 1 IS REJECTED UNDER 35 U.S.C. § 102 AS BEING ANTICIPATED BY AKIHIRO, JP 07-240458

In the fifth enumerated paragraph of the Office Action, the Examiner asserted that Akihiro discloses a plasma processing system corresponding to that claimed. This rejection is respectfully traversed.

Independent claim 1 recites the following limitation: "a detection apparatus for detecting the electrostatic-chucking state of the substrate and for detecting removal state of electrical charges from the substrate, on the basis of variations in impedance arising between the sample table and the substrate" (emphasis added). A detection circuit for detecting impedance is discussed throughout Applicants' specification. For example, the following discussion regarding a detection circuit can be found page 6, lines 26-31 of the specification:

> Reference numeral 11 designates an impedance detection circuit serving as detection apparatus connected to the voltage probe 10. The impedance detection circuit 11 measures variations in electrostatic capacitance attributable to the length of a gap between the wafer 1 and the power electrode 3. Further, the impedance detection circuit 11 measures variations in plasma impedance attributable to the length of a gap between the wafer 1 and the power electrode 3.

On page three of the Office Action, the Examiner asserted that feature 41 of Akihiro teaches the claimed detection apparatus. Furthermore, the Examiner asserted that feature 46 of Akihiro teaches an impedance detection circuit. Applicants respectfully disagree.

Referring to paragraph [0021] of the English-language translation of Akihiro, feature 41 is described as an "[e]lectric discharge sensing equipment." Furthermore, feature 46 is described as a voltmeter. Although the Examiner asserts that the electric discharge sensing equipment 41 of Akihiro is comparable to the claimed detection circuit, the Examiner has neglected to explain where Akihiro teaches that the electric discharge sensing equipment 46 operates "on the basis of

variations in impedance," as recited in claim 1. Similarly, the Examiner has failed to explain how the voltmeter 46 of Akihiro identically describes the claimed impedance detection circuit since voltage and impedance are two different electrical characteristics that are not considered comparable by one having ordinary skill in the art. Since the Examiner has failed to establish that Akihiro identically describes the claimed detection circuit within the meaning of 35 U.S.C. § 102, Applicants respectfully solicit withdrawal of the imposed rejection of claim 1 under 35 U.S.C. § 102 for anticipation based upon Akihiro.

CLAIMS 1-2, 4 AND 7 ARE REJECTED UNDER 35 U.S.C. § 102 AS BEING ANTICIPATED BY DEGUCHI ET AL., U.S. PATENT NO. 5,665,166 (HEREINAFTER DEGUCHI)

In the sixth enumerated paragraph of the Office Action, the Examiner asserted that Deguchi discloses a plasma processing system corresponding to that claimed. This rejection is respectfully traversed.

On page four of the Office Action, the Examiner asserted that feature 53 of Deguchi corresponds to the claimed detection apparatus and that features 52, 63 correspond to the claimed impedance detection circuit. Applicants respectfully disagree. Feature 53 is identified in Deguchi as "an abnormality detecting device" (column 9, lines 4-5). Notwithstanding Deguchi not going into great detail in explaining how the abnormality detecting device 53 operates, nowhere does Deguchi state that the abnormality detecting device 53 operates "on the basis of variations in impedance," as recited in claim 1. Thus, Applicants submit that Deguchi fails to teach or suggest the claimed detection circuit.

With regard to feature 52 and 63, which the Examiner asserted teaches the claimed impedance detection circuit, Deguchi states that the feature 52 is a "current monitor" (column 9, line 4) and feature 63 is a "V_{DC} monitor" (column 9, line 37-38). Notwithstanding the Examiner's assertion, the Examiner has failed to explain how a current monitor and a DC voltage monitor correspond to the claimed impedance detection circuit when current/voltage are not comparable to impedance. For the reasons stated above, Applicants submit that the Examiner has failed to establish that Deguchi identically describes all of the claimed limitations within the meaning of 35 U.S.C. § 102. Therefore, Applicants respectfully solicit withdrawal of the imposed rejection of claims 1-2, 4 and 7 under 35 U.S.C. § 102 for anticipation based upon Deguchi.

CLAIMS 3 AND 5-6 ARE REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON DEGUCHI IN VIEW OF COLLINS ET AL., U.S. PATENT NO. 5,874,361 (HEREINAFTER COLLINS)

In the ninth enumerated paragraph of the Office Action, the Examiner concluded that one having ordinary skill in the art would have been motivated to modify the plasma processing system of Deguchi in view of Collins to arrive at the claimed invention. This rejection is respectfully traversed.

Claims 3 and 5-6 depend ultimately from independent claim 1, and Applicants incorporate herein the arguments previously advanced in traversing the imposed rejection of claim 1 under 35 U.S.C. § 102 for anticipation based upon Deguchi. Specifically, Deguchi neither discloses nor suggests a detection device that operates on the basis of variations in impedance. The secondary reference to Collins does not cure the argued deficiencies of Deguchi. Accordingly, even if

combined, the proposed combination of references would not yield the claimed invention. Applicants, therefore, respectfully submit that the imposed rejection of claims 3 and 5-6 under 35 U.S.C. § 103 for obviousness based upon Deguchi in view of Collins is not viable and, hence, solicit withdrawal thereof.

CLAIM 1 IS REJECTED UNDER 35 U.S.C. § 103 FOR OBVIOUSNESS BASED UPON SOTOZONO, JP 62-054637 IN VIEW OF AKIHIRO

In the tenth enumerated paragraph of the Office Action, the Examiner asserted that Sotozono teaches all of the claimed limitations except for a pair of electrodes disposed within a chamber and concluded that one having ordinary skill in the art would have been motivated to modify the plasma processing system of Sotozono in view of Akihiro to arrive at the claimed invention. This rejection is respectfully traversed.

In the statement of the rejection, the Examiner asserted that Sotozono teaches the claimed detection apparatus. The Examiner, however, failed to indicate what feature in Sotozono corresponds to this claimed feature. In this regard, the Examiner's rejection under 35 U.S.C. § 102 also fails to comply with 37 C.F.R. § 1.104(c).[1] Since the Examiner's failed to indicate where the claimed detection apparatus can be found in Sotozono and Applicants' review of Sotozono has failed to identify a detection apparatus in Sotozono corresponding to that claimed, Applicants respectfully submit that Sotozono fails to teach or suggest this particular feature. Furthermore,

[1] 37 C.F.R. § 1.104(c) provides:

> In rejecting claims for want of novelty or for obviousness, the examiner must cite the best references at his or her command. When a reference is complex or shows or describes inventions other than that claimed by the applicant, the particular part relied on must be designated as nearly as practicable. The pertinence of each reference, if not apparent, must be clearly explained and each rejected claim specified.

as previously argued, Akihiro also fails to teach or suggest the claimed detection apparatus. Thus, even if Sotozono and Akihiro were combined in the manner suggested by the Examiner, the claimed invention would not result. Applicants, therefore, respectfully submit that the imposed rejection of claim 1 under 35 U.S.C. § 103 for obviousness based upon Sotozono in view of Akihiro is not viable and, hence, solicit withdrawal thereof.

Applicants have made every effort to present claims which distinguish over the prior art, and it is believed that all claims are in condition for allowance. However, Applicants invite the Examiner to call the undersigned if it is believed that a telephonic interview would expedite the prosecution of the application to an allowance. Accordingly, and in view of the foregoing remarks, Applicants hereby respectfully request reconsideration and prompt allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 500417, and please credit any excess fees to such deposit account.

Respectfully submitted,

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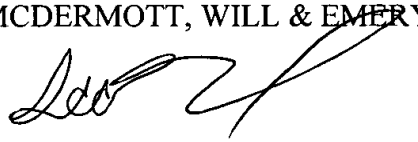

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